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Frogs on the verandah

Change is a constant factor in the life of all species; something that often cannot be controlled but must be adapted to. Unfortunately, the extent and speed of change often do not allow for easy adaptation, and species are becoming extinct. For example, the processes of urbanisation, a major source of change for many native species, are ever increasing. It is predicted that by 2025 more than 60% of the human population will reside in urban settlements.

The Save the Frogs Foundation in America reports that more than a third of the globe's frog species are disappearing. Destruction of habitat associated with human population growth is one of the most important causal factors. Some frog species, however, are quite adaptable. One such species is the Southern Brown Tree Frog *Litoria ewingii*. This small frog has become common in our urban settlements while others have disappeared. In urban gardens, these frogs can be found in temporary and permanent water bodies, amongst vegetation, under logs and

rocks and in the water of bowls beneath potted plants.

In 2006 four individuals took up residence on the front porch of my house in Croydon, Victoria, specifically in one of the rosettes of a potted bromeliad (Fig. 1). One frog resided in the 'well' formed by the rosette of leaves, the other three in the axils of leaves on the same stem, each in its own small 'pool' that diligent watering maintained. This was a particularly dry year and the four frogs remained in their bromeliad ponds for nine months before conditions became sufficiently moist to entice them further afield.

I was informed that they had taken up residence on the porch early in September of 2006, by a cacophony of rapid and harsh calls, surprisingly loud considering they were only small frogs. Of an evening, I would see them venture from their homes either to the tips of the bromeliad leaves or to the *Dianella* below the porch, where they would await their dinner

of unsuspecting insects. Throughout their nine month residency, they did not venture far but when winter came they moved out. The two in the upper storeys left first; three weeks later the other two left. Both the frogs that remained a little longer moved to the higher positions on the plant. After they left the bromeliad, the frogs could be heard calling from the front yard, but it took several more weeks before calls were heard from the back yard. Frogs had previously been in the back yard because of a large pond. During the decade-long drought, the pond had been reduced to a small puddle, fed by the runoff directed to it from the house roof. The September of 2006 was the driest on record and followed a particularly dry summer, autumn and winter, possibly explaining why the frogs had moved to the bromeliad. The winter of 2007, however, was drier than that of 2006 so I hoped the frogs would not regret their move. Diligent watering of the bromeliad was continued, just in case.

The Southern Brown Tree Frog is relatively small; adult females grow to about 45 mm while adult males are slightly smaller. The species fre-

quently is pale brown in colour although the occasional green individual occurs (<http://frogs.org.au> >Frogs of Australia). A dark stripe runs from the snout, through the eye to the shoulder (Fig. 2). Below this is a white or pale stripe. A broad brown band begins between the eyes and runs down the back. The skin has low tubercles (Fig. 3). The frog is an agile climber and has well developed climbing discs on fingers and toes. There is no webbing between the fingers but webbing occurs to halfway between the toes. The backs of the thighs are yellow to red-orange (<http://frogs.org.au> >Frogs of Australia). Those of the frogs observed were red-orange.

Small eggs have been observed in the pond regularly, in large gelatinous clusters attached to stems of vegetation, a little below the water level. The tadpoles themselves were quite shy and would disappear quickly when the water was disturbed.

This frog can be found in many habitats ranging from coastal lagoons and swamps to semi-arid regions, native vegetation and farm-



Fig. 1. Southern Brown Tree Frogs *Litoria ewingii* using a potted bromeliad.



Fig. 2. *Litoria ewingii*: note dark stripe running from snout, through eye to shoulder and climbing discs on fingers and toes.



Fig. 3. *Litoria ewingii*; note the low tubercles on the skin of this very pale specimen.

land, thus it is not surprising that this species would adapt to the urban environment. Its distribution ranges from eastern South Australia, through southern Victoria and into southern New South Wales (Robinson 2002). It also occurs throughout Tasmania, including the Bass Strait Islands, and has been introduced to New Zealand (Robinson 2002).

The Southern Brown Tree Frog is on the IUCN red list of threatened species but the population is considered stable and classed as 'least concern'; however, this species is increasingly threatened by urban creeps, disease (e.g. Chytrid fungus) and climate change.

Prior to gaining our tenants on the front porch, four different frog species commonly were heard to call in the back yard and periodically were sighted, and their tadpoles were commonly found in the pond. The two most

frequently heard frogs were the Southern Brown Tree Frog and the Pobblebonk *Limnodynastes dumerilii*. The Common Froglet *Crinia signifera* was sometimes heard or seen. The fourth frog species was the Spotted Marsh Frog *Limnodynastes tasmaniensis*. Since the drought, the Pobblebonk has not been heard but one is hopeful that its bonking will be resumed.

Household gardens are increasingly recognised as being able to provide habitat; books to promote biodiversity in urban areas by using the front- and back yards of households are becoming easier to obtain. 'Bonking in the Garden' (available at <http://frogs.org.au> > frog-watch) is an easy-to-read booklet that explains simply how to create a frog-friendly garden. A pond is not necessary although one somewhere in the near neighbourhood would promote the likelihood of having froggy visitors. A frog-friendly garden may not prevent habitat-specific species from becoming extinct but, as the booklet says, 'There are frog species which are now extinct that were once so common that no-one bothered to study them, instead turning their attention to rarer species. Providing refuge for species in degraded areas is essential if we wish to make sure that they too don't join the ever increasing list of threatened frogs' (p.2). Get the booklet, read it, do some gardening and enjoy some bonking in your garden.

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